



# Japan's Dirty Secret:

**World's top fossil fuel financier is fueling climate chaos and undermining energy security**

This briefing was written by Makiko Arima and Susanne Wong with contributions and data review from Laurie van der Burg, Claire O'Manique and Bronwen Tucker. It was edited by Emily Sproul.

The authors are grateful for feedback from the following reviewers:

Gerry Arances of the Center for Energy, Ecology and Development, Dipti Bhatnagar of Justiça Ambiental, Ayumi Fukakusa and Hozue Hatae of Friends of the Earth Japan, Kate DeAngelis of Friends of the Earth US, Yuki Tanabe of Japan Center for a Sustainable Environment and Society (JACSES), and Satoko Endo of Mekong Watch.

Data is from Public Finance for Energy Database, a project of Oil Change International that is available at [energyfinance.org](https://energyfinance.org). All monetary values in this report are stated in United States dollars (USD).

Design: Aneesa Khan

Cover image: Two young men help an old woman to walk through a path, which was completely submerged by floods in Swat, Pakistan. Source: Qasim Berech/Oxfam (CC BY-NC-ND 2.0)

November 2022

Published by: Oil Change International ([www.priceofoil.org](http://www.priceofoil.org))

Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the coming transition towards clean energy.

Oil Change International  
714 G Street SE, Suite #202, Washington, DC 20003  
[www.priceofoil.org](http://www.priceofoil.org)

Published in collaboration with:



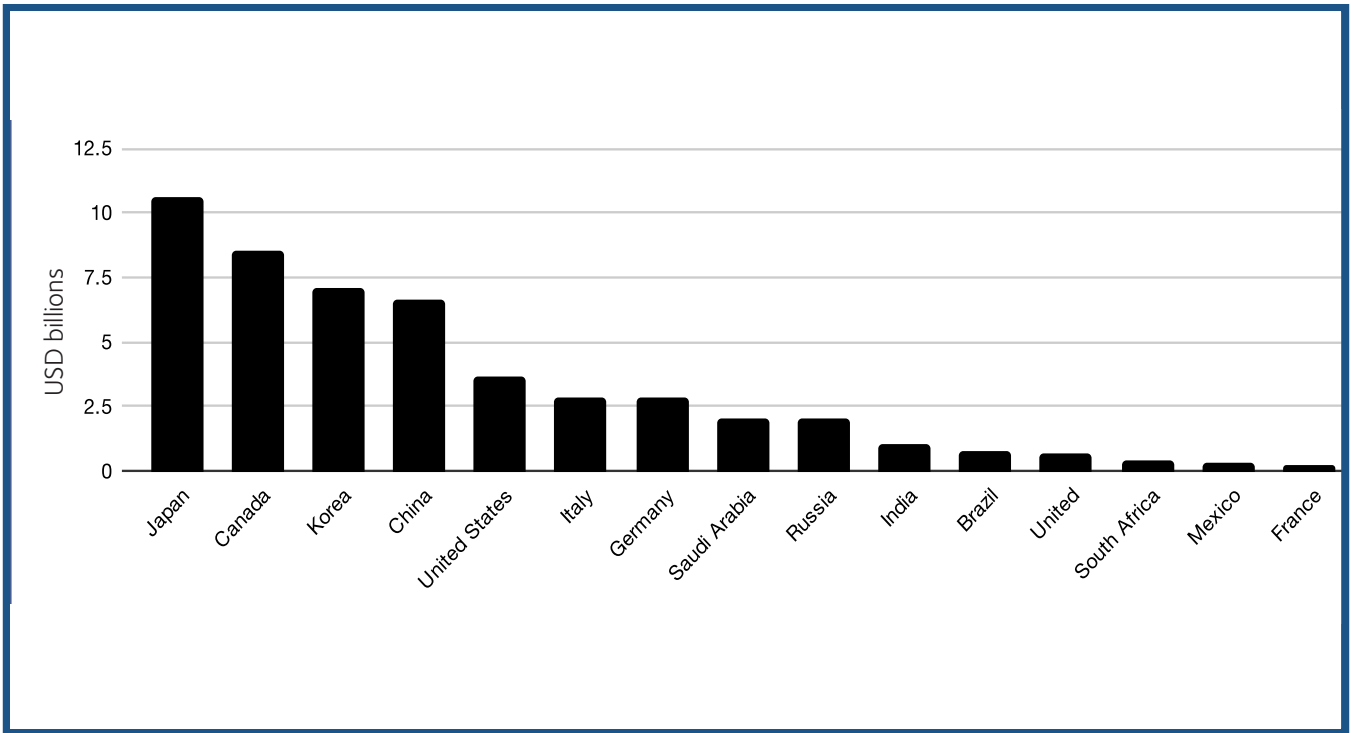
## At a Glance

- Japan is the world's largest public financier for fossil fuel projects, providing an annual average of \$10.6 billion USD between 2019 and 2021.<sup>1</sup>
- Japan is the world's largest financier of gas, spending an average of \$6.7 billion a year.
- As part of the G7, Japan committed to end international public finance for unabated fossil fuels by the end of 2022, except in limited circumstances.
- Japan's support for fossil fuels and false solutions – including gas, hydrogen and ammonia co-firing, and CCS – is fueling the climate crisis, harming communities and ecosystems, and facing rising opposition.

G20 countries and multilateral development banks provide at least \$55 billion USD annually to fossil fuel projects, or nearly two times their finance for clean energy (\$29 billion a year). As UN Secretary General Antonio Guterres succinctly put it, “The fossil fuel industry is feasting on hundreds of billions of dollars in subsidies and windfall profits while household budgets shrink and our planet burns.”<sup>2</sup>

Among these fossil fuel enablers, Japan stands out as the world's largest public financier of fossil fuel projects, providing an annual average of \$10.6 billion between 2019 and 2021. Japan is also the top financier of upstream fossil fuel projects despite international recognition that investment in new gas and oil fields and coal mines undermines our ability to meet the goals of the Paris Agreement.

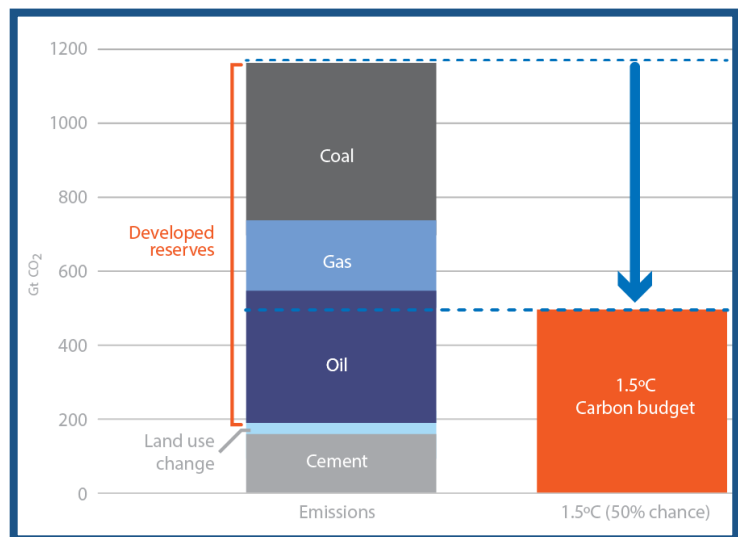
**Figure 1: Top 15 G20 country providers of international public finance of fossil fuels, annual average 2019–2021, in USD billions**



Source: Public Finance for Energy Database, energyfinance.org.

**Figure 2: Carbon dioxide emissions in global developed fossil fuel reserves compared to 1.5°C carbon budget**

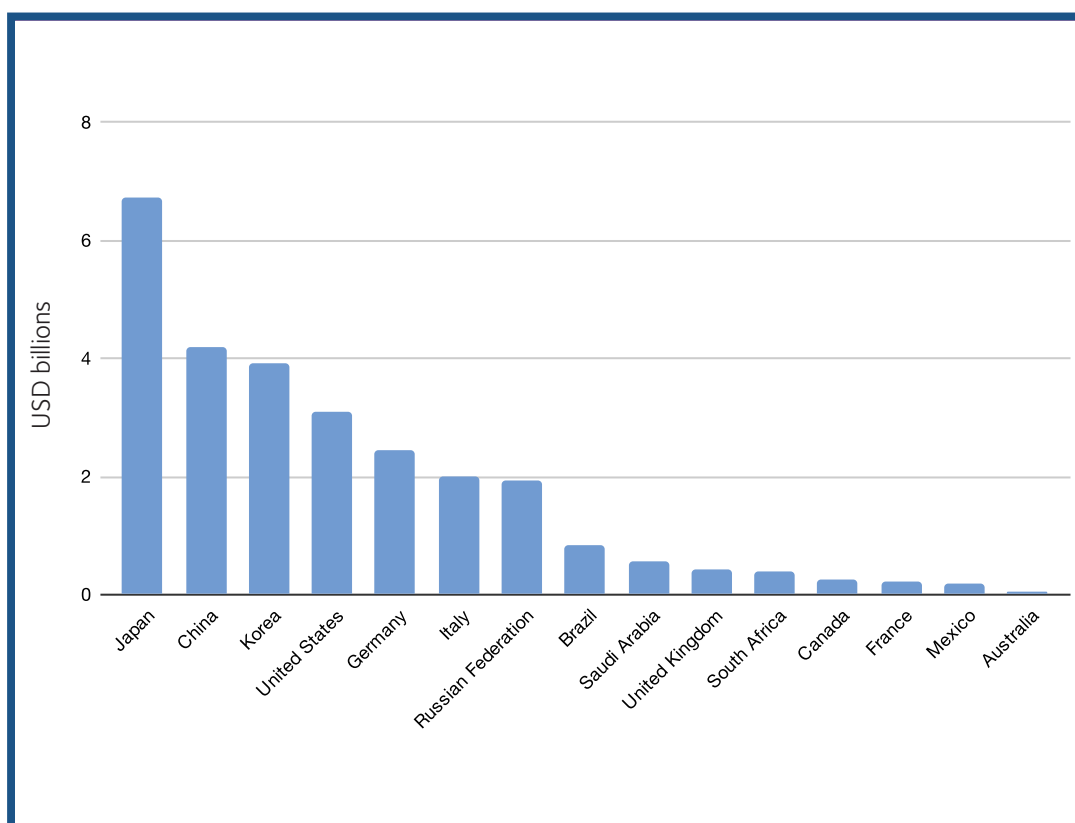
In its Net Zero by 2050 Roadmap, the International Energy Agency (IEA) says there is no room for investments in new coal, oil, or gas supply or liquefied natural gas (LNG) infrastructure. The IEA projects that gas will peak in the mid-2020s in its latest net zero scenario. Therefore, there is no further need for additional capacity beyond what exists or is under construction.<sup>3</sup> The Intergovernmental Panel on Climate Change (IPCC) also maintains that existing fossil fuel infrastructure, if operated as planned, would already push the world far beyond 1.5°C. There is no room for any expansion of coal, oil, and gas production. Yet, Japan’s financing for fossil fuel exploration and extraction remains huge, comparatively dwarfing the funds expended by Canada and China, who rank second and third respectively



Source: Oil Change International analysis based on data from Rystad Energy, IEA, World Energy Council, IPCC and Global Carbon Project. Carbon budgets shown are as of 1 January 2020

In a significant step forward, G7 nations committed in June “to end new direct public support for the international unabated fossil fuel energy sector by the end of 2022, except in limited circumstances [...] consistent with a 1.5 °C warming limit,” with a loophole that allows for LNG investment in response to the Russian crisis.<sup>4</sup> For Japan to keep this promise, it must transition swiftly to supporting clean energy and move away from funding fossil fuels and the misleading technologies that prolong their use. Despite its G7 pledge, Japan intends to continue financing upstream oil and gas.<sup>5</sup>

**Figure 3: Top 15 G20 country providers of public finance for gas, annual average 2019-2021, in USD billions**

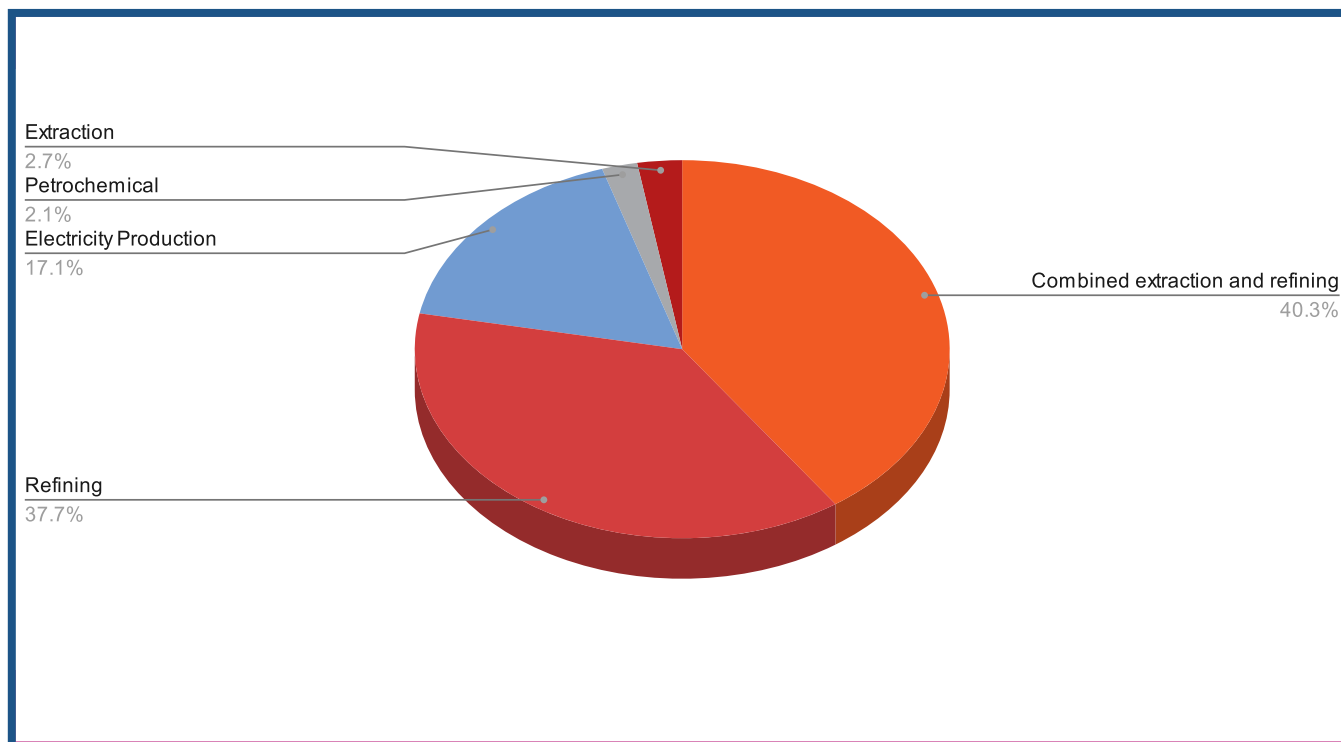


Source: Public Finance for Energy Database, [energyfinance.org](http://energyfinance.org).

## Japan’s fossil fuel finance undermines a just energy transition

The Japanese government has been leading the drive to expand gas consumption in Asia and is the world’s leading financier of gas infrastructure globally. Between 2019 and 2021, Japan spent \$6.7 billion on gas projects on average each year. The vast majority of this finance, 81 percent, went towards extraction and refining projects. The remaining finance went towards electricity production (17 percent) and petrochemical projects (2 percent).

**Figure 4: Japanese public finance for gas projects by stage, 2019–2021**



Source: Public Finance for Energy Database, [energyfinance.org](http://energyfinance.org).

Japan’s top two gas finance recipients are Mozambique and Russia, where resources are hardly used for a just energy transition. From 2019 to 2021, Japan committed \$8.2 billion in loan agreements for Mozambique, but 99.5% of the funds went to facilities linked to extraction and export rather than domestic consumption or energy access. During that time period, Japan also committed \$4.8 billion in public finance for fossil fuel projects in Russia,<sup>6</sup> which relies on oil and gas export for 45% of its total government revenue,<sup>7</sup> part of which goes towards financing the invasion of Ukraine.<sup>8</sup>

Japan promotes gas as a “low emitter” compared to coal. However, if total emissions include the entire life cycle of gas, it is just as dirty or, in some cases, even dirtier than coal.<sup>9</sup> The main ingredient of gas is methane, a climate super-pollutant over 80 times more potent than carbon dioxide over a 20-year span that is leaked throughout the gas supply chain.

**Table 1: Japanese public finance for gas by host country, total 2019–2021, in USD**

Mozambique	8,164,975,100
Russian Federation	6,656,907,800
Uzbekistan	1,170,950,000
Canada	850,000,000
Japan	716,000,000
Bangladesh	619,000,000
Australia	545,000,000
United Arab Emirates	470,000,000
Saudi Arabia	432,000,000
Thailand	208,000,000
Qatar	97,000,000
Myanmar	68,058,500
United States	67,000,000
Mauritania, Senegal	58,330,000
Singapore	50,000,000
Viet Nam	4,000,000

Source: Public Finance for Energy Database, [energyfinance.org](http://energyfinance.org).

which entails chilling the gas so that it is transformed into a liquid for shipping, needs to be regasified before use. This process requires a lot of energy, creating even more emissions.<sup>10</sup>

The current energy crisis has been aggravated by the war in Ukraine and the slow global transition to clean energy. It has also exposed the financial risks associated with financing gas. The Russian invasion of Ukraine has spiked spot prices for LNG in Asia to record levels, making LNG unaffordable and a barrier to accessing energy for some countries. Bangladesh is saddled with gas infrastructure that they cannot fuel. As a result, the country faces the prospect of rolling blackouts that could continue for three years.<sup>11</sup>

Japan's drive to expand gas in Asia is short-sighted. The IEA discerns a loss in momentum behind gas growth in developing countries, notably in South and Southeast Asia, "putting a dent in the credentials of gas as a transition fuel."<sup>12</sup>

Japan's interest in advancing gas use, especially in Asia, is no secret: the government aims to "enhance LNG security and maintain Japan's influence in the international LNG market," by actively

creating and expanding LNG demand in Asian countries.<sup>13</sup> Entrenching itself further in the LNG market, Japan announced in May 2021 that it would provide \$10 billion for transition efforts in the ASEAN region, including LNG projects, through the Asia Energy Transition Initiative.<sup>14</sup>

This strategy is risky in light of the shifting policy environment as more investors call for curtailment of fossil fuel projects.<sup>15</sup> LNG infrastructure is expected to have a lifespan of 30 to 40 years or more, which leaves projects at risk of becoming stranded assets and hinders renewable energy investments in developing countries.<sup>16</sup>

The foreseeable end of fossil fuels also means that developing countries hosting these projects will be left with stranded assets that bring limited to no benefits for the local communities. In Africa, fossil fuel production has historically entailed poor contract terms, industry-friendly subsidies and royalty frameworks, debt traps, corruption, and the outsized ownership of fossil resources by multinational corporations that have not delivered just development, energy access, or resource sovereignty.<sup>17</sup>



Construction of a new gas-fired power plant and LNG import terminal is seen in the province of Batangas, south of Manila, Philippines. Source: Basilio Sepe



Local communities, environmentalists, and civil society supporters marked Earth Day in Batangas protest to denounce plans to develop a whole fleet of new fossil gas. Source: Protect VIP

## Japan's false solutions prolong the use of fossil fuels

The Japanese government is promoting a menu of false solutions that risk blocking or delaying decarbonization efforts in Asia, while also exposing countries to the geopolitical and economic risks of fossil fuel dependency. In January 2022, Japanese Prime Minister Kishida shared his vision of an “Asia Zero Emissions Community” in which Japanese technology in carbon capture and storage (CCS), ammonia, and hydrogen would be utilized for “decarbonizing while still using fossil fuels” in Asia.<sup>18</sup>

These false solutions serve to support incumbent Japanese heavy industries and prolong the use of fossil fuels, while more affordable and cleaner alternatives exist.<sup>19</sup> For instance, the Japan International Cooperation Agency (JICA) is promoting LNG and ammonia co-firing in Bangladesh as part of its power master plan for the country despite cleaner and cheaper alternatives.<sup>20</sup>

### *Carbon capture and storage*

The Japanese government is actively promoting the use of CCS despite major financial and technological risks. CCS involves the capture of CO<sub>2</sub> from heavy emitting sites like power plants and oil refineries so they can be injected into geological formations to be stored. The 50-year old technology has largely failed to deliver. Around 90% of proposed CCS capacity in the power sector has failed at the implementation stage or was suspended early. Two CCS projects in Canada and Australia underperformed their carbon capture capacity by about 50%.<sup>21</sup>

### *Ammonia and hydrogen co-firing*

While burning blue ammonia and hydrogen are often misrepresented as “emissions-free”, they emit greenhouse gas emissions (GHGs) during their manufacturing stage. Even with the most advanced equipment, approximately 1.6 tons of CO<sub>2</sub> is emitted to produce 1 ton of ammonia.<sup>22</sup> Similarly, most hydrogen is made from a methane source, such as natural gas, emitting much CO<sub>2</sub>.<sup>23</sup> The GHG footprint of blue hydrogen can be 20% greater than burning gas or coal.<sup>24</sup> To decarbonize the production process, blue hydrogen and ammonia depend on CCS, which is not a reliable technology.<sup>25</sup> Japan has also promoted gas infrastructure with plans of repurposing it for lower carbon fuels in the future. However, repurposing hydrogen, for example, requires substantial adaptation and its costs have not been fully considered.<sup>26</sup>



## Japan's overseas gas projects face increasing opposition

There is growing resistance amongst communities and civil society in host countries against gas infrastructure projects and the damage these projects have inflicted on the environment and livelihoods. Here is a brief snapshot of rising opposition to Japanese-financed fossil fuel projects.

- **Mozambique** - Plans to extract, liquify, and transport gas off the shores of Mozambique for the Rovuma and Mozambique LNG projects have forcefully relocated hundreds of households and displaced fishing communities, depriving them of traditional income. These projects have also exacerbated inequality in the region, which has led to repression and violence. Mozambican NGOs and local communities living in the gas region have filed complaints and are mobilizing opposition globally. The Japan Bank for International Cooperation (JBIC) and the Japan Oil, Gas and Metals National Corporation (JOGMEC) provided loans totaling \$6 billion, and Nippon Export and Investment Insurance (NEXI) has underwritten insurance for \$2 billion for this project. For more information, visit <https://stopmozgas.org/from-the-ground/>.
- **Batangas (Philippines)** - Gas expansion in the Batangas region threatens to harm the Verde Island Passage, one of the world's centers of marine shorefish biodiversity. In August 2022, civil society and conservation groups, faith-based organizations, youth, and others came together in opposition. In October 2022, they filed a complaint against Atlantic Gulf and Pacific Company (AG&P) for violation of environmental laws and asked the environmental authority to halt the project. AG&P is developing the country's first LNG import terminal in Batangas. JBIC is a shareholder of AG&P. For more information, visit <https://www.protectvip.org/waggas>.
- **Barossa (Australia)** - The proposed Barossa gas field north of the Tiwi Islands would be the dirtiest in Australia and possibly the world. The project would endanger pristine marine life and emit 15.6 million tons of CO2 annually if the gas from Barossa is extracted and burned. Indigenous Tiwi Islanders were not consulted in plans to develop the gas field. In September, impacted community members won a federal court action against the government of Australia to stop the gas field. JBIC approved a \$346 million loan for the project in 2021. For more information, visit <https://stopbarossagas.org/>.



Climate campaigners urge Japanese corporations to stop plans for fossil gas and LNG plants in Batangas. Source: Philippine Movement for Climate Justice

## Conclusion: End Japan's fossil finance and support just transition

The world is experiencing extreme weather events at unprecedented scales. UN Secretary General Antonio Guterres reminds the world that those least responsible for the climate crisis are facing extraordinary impacts while heavy emitters continue to burn fossil fuels. For example, Pakistan, which generates negligible carbon emissions, was hit by relentless rainfall and flooding this year that has left one third of the country under water. Calling out fossil fuel supporters, Guterres calls for change: “We need to hold fossil fuel companies and their enablers to account. [...] it is high time to put fossil fuel producers, investors, and enablers on notice. Polluters must pay.”<sup>27</sup>

Japanese fossil-fueled “decarbonization” efforts are a smoke screen for Japan’s hidden agenda: protecting Japanese business interests over people and planet. Japan’s finance for fossil fuels and false solutions is fueling climate chaos and is facing rising opposition. If Japan is serious about demonstrating climate leadership and supporting a regional “zero emissions community,” it should immediately end public finance for fossil fuels, as promised at this year’s G7 Summit, and support a just transition to renewable energy.



Civil society groups take action to protest against the Japanese government's imposition of "false solutions" at Tokyo GX Week. Source: Masayoshi Iyoda / 350.org Japan

## Endnotes

1. Public financing includes export credit agencies and development finance institutions.
2. United Nations General Debate of the 77th Session, Secretary-General of the United Nations H.E. Mr. António Guterres, September 20, 2022, <https://gadebate.un.org/en/77/secretary-general-united-nations>
3. IEA, World Energy Outlook 2022, October 2022, <https://iea.blob.core.windows.net/assets/c282400e-00b0-4edf-9a8e-6f2ca6536ec8/WorldEnergyOutlook2022.pdf>
4. G7 Leaders' Communiqué, June 28, 2022, <https://www.g7germany.de/resource/blob/974430/2062292/9c213e6b4b36ed1bd687e82480040399/2022-07-14-leaders-communicue-data.pdf?download=1>
5. Takeo Kumagai, "Japan remains committed with public support for upstream developments after G7 pledge," S&P Global, May 30 2022, <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/energy-transition/053022-japan-remains-committed-with-public-support-for-upstream-developments-after-g7-pledge>
6. Laurie van der Burg et al., Recommendation for policy-makers: Ensuring public finance accelerates a just energy transition, Oil Change International, June 2022, <http://priceofoil.org/content/uploads/2022/06/Briefing-Ensuring-Public-Finance-Accelerates-a-Just-Energy-Transition.pdf>
7. IEA, Energy Fact Sheet: Why does Russian oil and gas matter? March 21, 2022. <https://www.iea.org/articles/energy-fact-sheet-why-does-russian-oil-and-gas-matter>
8. "Moskau: Gas-Mehreinnahmen für Krieg," Tagesschau, May 28, 2022, <https://www.tagesschau.de/newsticker/liveblog-ukraine-samstag-141.html#Mehreinnahmen>
9. Oil Change International, Jordan Cove LNG and Pacific Connector Pipeline Greenhouse Gas Emissions Briefing, January 2018, [https://priceofoil.org/content/uploads/2018/01/JCEP\\_GHG\\_Final-Screen.pdf](https://priceofoil.org/content/uploads/2018/01/JCEP_GHG_Final-Screen.pdf)
10. Oil Change International, The Climate Case against Gas Expansion: Carbon emissions from new gas infrastructure threaten our climate goals, September 2021, [https://priceofoil.org/content/uploads/2021/11/LNG\\_factsheet-1fin\\_v3.pdf](https://priceofoil.org/content/uploads/2021/11/LNG_factsheet-1fin_v3.pdf)
11. "Global gas crunch leaves Bangladesh facing blackouts until 2026," Business Standard, August 2, 2022, [https://www.business-standard.com/article/international/global-gas-crunch-leaves-bangladesh-facing-blackouts-until-2026-122080200039\\_1.html](https://www.business-standard.com/article/international/global-gas-crunch-leaves-bangladesh-facing-blackouts-until-2026-122080200039_1.html)
12. IEA, World Energy Outlook 2022.
13. JOGMEC, "Results of FY2022 Survey on LNG Handling Volume by Japanese Companies," October 18, 2022, [https://oilgas-info.jogmec.go.jp/nglng\\_en/handling\\_volume/1009502.html](https://oilgas-info.jogmec.go.jp/nglng_en/handling_volume/1009502.html)
14. METI, "Minister Kajiyama announced the Asia Energy Transition Initiative (AETI)," May 28, 2021, [https://www.meti.go.jp/english/press/2021/0528\\_002.html](https://www.meti.go.jp/english/press/2021/0528_002.html)
15. Ross Kerber and Simon Jessop, "Investors with \$39 tln urge govts to plan fossil fuel phase out," Reuters, September 15, 2022, <https://www.reuters.com/business/sustainable-business/investors-with-39-tln-urge-govts-plan-fossil-fuel-phase-out-2022-09-13/>
16. Greg Muttitt et al., Step Off the Gas: International public finance, natural gas and clean alternatives in the Global South, International Institute for Sustainable Development, June 2021, <https://www.iisd.org/system/files/2021-06/natural-gas-finance-clean-alternatives-global-south.pdf>
17. Bronwen Tucker and Nikki Reisch, The Sky's Limit Africa: The Case for a Just Energy Transition from Fossil Fuel Production in Africa, Oil Change International, October 2021, <https://priceofoil.org/2021/10/14/the-skys-limit-africa/>
18. Ryo Nemoto, "Japan turns to ASEAN to advance carbon capture tech," Nikkei Asia, April 6, 2022, <https://asia.nikkei.com/Spotlight/Environment/Climate-Change/Japan-turns-to-ASEAN-to-advance-carbon-capture-tech>
19. BloombergNEF, Japan's Costly Ammonia Coal Co-Firing Strategy, September 28, 2022, [https://assets.bbhub.io/professional/sites/24/BNEF-Japans-Costly-Ammonia-Coal-Co-Firing-Strategy\\_FINAL.pdf](https://assets.bbhub.io/professional/sites/24/BNEF-Japans-Costly-Ammonia-Coal-Co-Firing-Strategy_FINAL.pdf)
20. JICA, "The Integrated Energy and Power Master Plan Project in Bangladesh," 2021, <https://www.jica.go.jp/project/english/bangladesh/016/outline/index.html>
21. Bruce Robertson, "Carbon capture: a decarbonisation pipe dream," Institute for Energy Economics and Financial Analysis, September 1, 2022, <https://ieefa.org/articles/carbon-capture-decarbonisation-pipe-dream>
22. Kimiko Hirata and Hiroshi Ito, Hydrogen and ammonia co-firing in the power sector: Japan is choosing to expand fossil-fuel extraction and perpetuate coal and LNG, Kiko Network, October 2021, <https://beyond-coal.jp/beyond-coal/wp-content/uploads/2021/10/position-paper-hydrogen-ammonia.pdf>
23. Robert W. Haworth and Mark Z. Jacobson, "How green is blue hydrogen?" Energy Science and Engineering, August 12, 2021, <https://doi.org/10.1002/ese3.956>
24. *ibid.*
25. Market Forces, "Hydrogen from fossil fuels: An expensive way to increase emissions," <https://www.marketforces.org.au/info/hydrogen/>
26. Muttitt et al., 2021.
27. United Nations, "Secretary-General's Address to the General Assembly", September 20, 2022, <https://www.un.org/sg/en/content/sg/statement/2022-09-20/secretary-generals-address-the-general-assembly-trilingual-delivered-follows-scroll-further-down-for-all-english-and-all-french>

